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DEPARTMENT OF TRADE AND COMMERCE

Supply of Building Materials in Canada

OUTLOOK 1950

Presented to Parliament by
The Right Honourable C. D. Howe, M.P.,
Minister of Trade and Commerce



CANADA

OTTAWA
EDMOND CLOUTIER, C.M.G., B.A., L.P.
KING'S PRINTER AND CONTROLLER OF STATIONERY

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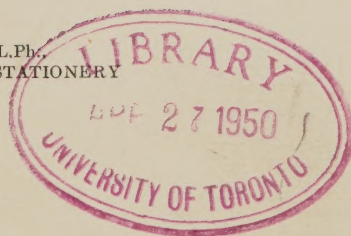


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1. INTRODUCTION

The continuing high level of investment is one of the most important factors supporting income and employment in Canada. With each succeeding year since the end of the war, industry, institutions, governments, and individuals have purchased an ever increasing volume of capital goods. They have spent more on expansion and replacement. Modernization of existing facilities and outlay on maintenance and repair work have steadily increased. It now appears likely that total construction expenditures in 1950 will be about 12 per cent higher than they were in 1949. A marked increase in domestic production and imports of building materials and manufactured products are still not readily available, and demand, although levelling off, will support capacity production and a high level of imports of certain building materials in 1950.

Behind this unprecedented demand lies the increasing physical needs of a growing population and the high levels of income and employment which have persisted over the past ten years. Technological advances and under-replacement and under-maintenance of buildings and equipment in the inter-war years have also served to reinforce Canada's requirements for basic and building materials. Present investment activity, while contributing to a high level of employment is, at the same time, creating productive facilities needed to provide for a rising standard-of-living among Canadians.

Canada's resources of labour, plant and equipment have been mobilized to carry out this vast investment program, and many industries have co-operated in its expansion. The machinery and raw materials producing industries which were greatly expanded during the war, entered the post-war period operating at or near full capacity. The construction industry, on the other hand, was in a less favourable position, having lost many of its employees during the war years. Its recovery was also delayed by a lack of skilled tradesmen. Nevertheless, higher wage rates, improved training facilities and immigration all contributed to a rapid increase in the supply of labour.

The outstanding accomplishments of the building and related raw materials industries is reflected in the gradually improving supply situation. This has occurred despite a growing volume of new investment since 1945. Each year production has increased and has now reached levels far above those attained during any war or pre-war year. As a result, fewer investment projects are currently being delayed due to building material shortages.

The current supply-demand position is such that all investment projects planned for 1950 by industry, institutions, government and individuals should be carried out with comparatively few supply difficulties. Certain building materials such as cement, clay, and gypsum products are still in short supply and are expected to remain so during the current year. Items made from steel, such as pipe and galvanized sheet, are also difficult to obtain but may be provided from increased imports. Other commodities which are still in short supply but on which deliveries may be expected to improve, are sanitary ware and vitrified clay products.

The Dominion Bureau of Statistics, the Building Materials Branch, the Steel Controller and the Timber Controller of the Department of Trade and Commerce all contributed to the collection and interpretation of the data in this report. The report itself was prepared in the Economic Research and Development Branch of the Department of Trade and Commerce by Dr. John Davis and Mr. T. R. Vout.

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OTTAWA,
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2. OUTLOOK FOR THE PRODUCTION OF BUILDING MATERIALS IN 1950

Recent surveys of Canadian private and public investment, and repair and maintenance intentions, show that anticipated production and imports of most basic and building materials should be adequate to meet Canadian construction requirements in 1950. An increase of about 10 per cent in the volume of construction is expected but substantial gains should be made in the production of scarce materials and some additional imports may be available. This may lead to the reduction of some of the shortages which persisted throughout 1949. A smoother flow of raw materials and building supplies to contractors and other users may result. Full realization of 1950 construction intentions is not likely to be hampered by shortages of building materials.

Shortages which persisted throughout 1949 and which are expected to continue in 1950 exist in the case of cement and cement products, building brick and other clay products, gypsum lath and wallboard, light gauge steel sheet and small sizes of steel pipe. Since production of these building materials is not expected to show a marked increase, imports will still be necessary on a fairly large scale. Alternatively, iron and steel products are moving into better supply and imports of steel will probably help to bring about a further increase in Canadian production of sanitary ware, heating equipment and pipe.

The present outlook is for Canadian production of primary iron and steel to continue at about present levels in 1950. However, as far as building materials made from these metals are concerned, this will be more than offset by a greater availability of pig iron and certain steel shapes from domestic sources and by large imports from the United States, the United Kingdom, and Belgium. The domestic supply of lumber is not expected to show any decided improvement as long as the present U.S. boom continues. For other building materials, anticipated increases in production are more modest than last year and a continuation of imports will be necessary where shortages still exist.

At the present time, few additions to plant capacity in the building material industry are being made, although some extensions and further improvements in operations should contribute towards greater output. In several cases, greater production should be realized from new facilities which operated only during a part of last year or which did not reach full capacity until well into 1949. Overall imports of building materials may be slightly higher this year due to the relaxation of emergency exchange import controls and the improved foreign supply position of most materials. Entering 1950, there appeared to be few significant changes in producers' and distributors' inventories. In nearly all cases, stocks at the producer level represented materials awaiting shipment.

The expected shift in the volume of investment and repairs from machinery and equipment to construction during 1950 points to a sustained demand for building materials. For all types of construction in Canada, dollar expenditures are likely to be up about 12 per cent, while outlay on machinery and equipment is expected to be down about 5 per cent. Thus, assuming no change in prices on the average, it appears that only in the case of construction will there be a gain in volume compared with last year. The main increases are expected in utility and institutional construction and may be partially offset by a drop in manufacturing and primary industry. There appears to be a definite correlation between the expected pattern of demand and anticipated production and imports of building materials and equipment. Work stoppages or delays resulting from the tardy delivery of machinery or raw materials are not expected to prevent the

realization of the intention of building materials producers as outlined in this report. Work stoppages occasioned by labour-management disputes did not materially affect the achievement of production targets last year. A levelling off in cost of living towards the end of 1949 may be expected to continue into 1950, thus reducing one of the most likely causes for disputes in the building materials industries next year.

Although domestic production of primary iron and steel is not expected to increase, imports of secondary products, taking the year as a whole, are expected to be well above those received last year. European sources are also expected to make shipments to Canada which will serve to augment imports of structural steel, plate, pipe and skelp, wire and galvanized sheet from the United States. Only in the case of light gauge sheet and small diameter pipe are shortages anticipated. The Government will continue to encourage the movement of semi-finished steel from primary producers to other steel mills with adequate finishing capacity to handle it.

The domestic supply of lumber is not expected to change materially in 1950 and special types and grades may still be difficult to procure despite the fact that production may at least equal 1949 levels. Sales in the United States are expected to continue at a relatively high level throughout the year and any possible decrease in United Kingdom contracts may be taken up by that market. Besides this, manufacturers' inventories are at a low level and United States prices are appreciably above those in Canada. Therefore, it appears that prime quality lumber suitable for sale abroad may not be readily available in Canada throughout 1950. Export controls on lumber and wood building materials with the exception of pulp and fibre wallboards were discontinued at the end of last year.

A comparison of 1949 production with production expected in 1950 for a selected group of building materials is shown in Table 1 entitled "Production and production intentions for selected building materials in Canada, 1949 and 1950". Further increases in twenty-one of the thirty building materials covered in this report are expected to take place in 1950. Only one, namely hot water heaters, is expected to be up by 20 per cent or more. Another four may rise by 10-20 per cent. These include bulk mineral wool, enamelled bath tubs, sinks and wash basins. For another six materials production increases ranging between 5-10 per cent are anticipated. These commodities are vitrified clay flue linings, structural tile, gypsum lath, hot water storage tanks and window glass. Output of cast iron radiators is indicated as being down by about 5 per cent in 1950. This is due to the high cost of hot water and steam heating relative to that of warm air systems and to the continuing shortage of steel pipe for installation. In the cement and cement products, building brick, vitrified clay sewer pipe, gypsum hardwall plasters, roofing products, miscellaneous plumbing supplies, wire nails and spikes, paints, pigments and varnishes, electrical supplies, and pulp and fibre boards, Canadian production in 1950 is expected to show little change or to rise only slightly.

The most significant increases in the production of building materials are expected to continue to occur in certain iron and steel products which were still only in fair supply late in 1949, e.g. enamelled bath tubs, sinks, wash basins, water heaters and storage tanks. This anticipated improvement in output, together with a continuing flow of imports, should serve to meet the high level of demand for these items expected in 1950. Shortages of other building materials made from iron and steel, such as steel pipe, electrical conduit, galvanized steel sheet, and wire nails should be relieved as raw materials become more readily available. Imports of the latter items should continue at or above 1949 levels. Steel sheet, on the other hand, may not be freely available until late in the year due to exceptionally heavy demands from motor vehicles manufacturers both in the United States and Canada.

TABLE 1.—PRODUCTION AND PRODUCTION INTENTIONS FOR SELECTED BUILDING MATERIALS IN CANADA, 1949 AND 1950

Material	Unit	Production 1949 (¹)	Production Intentions 1950	Percentage Change from 1949
CEMENT AND CEMENT PRODUCTS—				
Cement.....	Million Barrels.....	16.1	16.7	+3.7
Concrete Brick and Building Blocks.....	Million Pieces.....	80.0	83.0	+3.7
Cement Pipe and Tile(²).....	Thousand Tons.....	117.1	119.0	+1.6
CLAY PRODUCTS—				
Building Brick (incl. Sand-Lime Brick).....	Million Bricks.....	369.5	381.6	+3.3
Vitrified Flue Linings.....	Million Linear Feet.....	1.2	1.3	+8.3
Vitrified Sewer Pipe.....	Million Linear Feet.....	4.4	4.5	+2.3
Structural Tile.....	Thousand Tons.....	173.0	185.5	+7.2
MINERAL WOOL PRODUCTS—				
Mineral Wool Batts (All sizes).....	Million Square Feet.....	136.4	149.0	+9.2
Bulk Mineral Wool (Granulated and Loose).....	Million Cubic Feet.....	14.7	16.9	+15.0
GYPSPUM PRODUCTS—				
Gypsum Wallboard.....	Million Square Feet.....	228.1	237.6	+ 4.2
Gypsum Lath.....	Million Square Feet.....	176.9	188.2	+ 6.4
Gypsum Hardwall Plaster.....	Thousand Tons.....	164.0	168.4	+ 2.7
ROOFING PRODUCTS—				
Asphalt Shingles (All weights).....	Million Squares.....	2.1	2.1	0.0
Smooth and Mineral Surfaced Rolls.....	Million Squares.....	2.0	2.0	0.0
PLUMBING SUPPLIES—				
Cast Iron Soil Pipe and Fittings.....	Thousand Tons.....	45.4	45.7	+ 0.7
Cast Iron Pressure Pipe and Fittings.....	Thousand Tons.....	91.4	91.4	0.0
Steel Pipe and Fittings.....	Thousand Tons.....	184.4	184.4	0.0
SANITARY WARE—				
Bath Tubs.....	Thousand Tubs.....	132.5	157.5	+18.9
Sinks.....	Thousand Sinks.....	195.5	234.4	+19.9
Wash Basins.....	Thousand Basins.....	140.2	160.9	+14.8
HEATING EQUIPMENT—				
Furnaces—Warm Air and Heating Boilers.....	Thousand Furnaces.....	89.4	89.4	0.0
Electric Water Heaters.....	Thousand Heaters.....	155.5	195.0	+25.4
Hot Water Storage Tanks (Range Boilers).....	Thousand Tanks.....	197.8	217.0	+ 9.7
Cast Iron Radiators.....	Million Square Feet.....	6.4	6.1	- 4.7
OTHER IRON AND STEEL PRODUCTS—				
Wire Nails and Spikes.....	Thousand Tons.....	89.7	89.7	0.0
Builders' Hardware.....	Million Dollars.....	9.8	9.8	0.0
MISCELLANEOUS PRODUCTS—				
Common, Colourless Window Glass(³).....	Million Square Feet.....	64.6	70.0	+ 8.4
Paints, Pigments and Varnishes.....	Million Dollars.....	87.1	89.4	+ 2.6
Non-Metallic Sheathed Cable.....	Million Linear Feet.....	87.3	89.5	+ 2.5
Rigid Insulating Boards.....	Million Square Feet(⁴).....	222.7	222.7	0.0

(1) Preliminary.

(2) Includes drain, sewer and water pipe and culvert tile.

(3) Imports.

(4) $\frac{1}{2}$ " Basis.

Manufacturers of building materials requiring pig iron do not expect an overall increase in output. This is due to the fact that production is in step with demand and order backlogs have been largely filled. Unless marked extensions of services occur in 1950, no shortages of cast iron pressure pipe and fittings are likely to occur. Users of rolled steel products, however, have forecast a marked increase in production. This is possible in the case of enamelled sanitary ware because pressed steel shapes should be more readily available to supplement common cast iron shapes. Warm air furnace manufacturers expect to get more

steel sheet both for production and installation in 1950 and hot water storage tanks fabrication should increase for the same reason. Manufacturers of iron and steel building materials may also have greater latitude within which to vary the pattern of their production in accordance with demand. This should also serve to eliminate existing shortages. However, the steel strike which occurred in the United States late in 1949 may have some effect upon the supply of these commodities in Canada during the current year.

Supplies of other building materials are also expected to be augmented by increased domestic production. Cement output should be up as a result of continued operation of new facilities brought in last year. Shortages of brick and other clay products will be eased slightly by more efficient operations and plant rehabilitation. Consumption of mineral wool products is increasing but Canadian sources are in a position to meet the demand for insulating materials. Plans are also being made to bring about a moderate increase in the manufacture of gypsum products. No large plants or substantial additions to existing facilities are expected to begin producing any of the major building materials in 1950. As a result, this country must continue to rely upon foreign sources for substantial quantities of cement and clay products and gypsum lath.

Other important building materials which are still imported in order to meet Canadian construction requirements are structural steel, sanitary ware, nails, hardwood flooring, and window glass. With the exception of gypsum and pulp and fibre wallboards and lath, and heating equipment, imports are no longer restricted. Imported items such as structural steel and window glass are expected to be in adequate supply during 1950. Building materials which are not under export control include cement, clay products, mineral wool products, roofing products, domestic heating furnaces, electrical supplies, except conduit, and paints, pigments, and varnishes.

Canadian manufacturers of a number of building materials have anticipated a levelling off or decline in the demand for their products which may not have been justified. As a result, estimates of production in 1950 are below available plant capacity in a number of cases. Items, such as concrete building blocks, mineral wool products, cast iron soil and pressure pipe, radiators, electric water heaters, builders' hardware, and non-metallic sheathed cable can, therefore, be made in this country in greater volume if the need arises.

3. PRODUCTION AND SUPPLY OF BUILDING MATERIALS, 1945-1949

A majority of firms manufacturing for the construction industry were either closed down or operated spasmodically during the depression years. Later in the 1930's they began to recover slowly. During the early war years activity was intense. However, as Canada's production effort got under way, the overall rate of construction began to decline once more and building materials industries were no longer in a position to expand productive facilities and add to their skilled labour force. Since the end of the war, they have frequently had to contend with material and labour shortages, run-down plant, and inadequate productive capacity. At the same time, there has been an understandable hesitation to expand and invest in an industry which has experienced wide fluctuations in the demand for its products. However, additional labour has been recruited and plant facilities have been expanded. The impact of the investment boom has been felt most in the building materials industries. Comparative figures on employment and capital expenditures in the construction industry and in the building materials industry are shown below in Table 2 entitled "Employment and capital expenditures in the building materials and construction industries in Canada, 1945-49".

TABLE 2.—EMPLOYMENT AND CAPITAL EXPENDITURES IN THE BUILDING MATERIALS AND CONSTRUCTION INDUSTRIES IN CANADA, 1945-1949

Year	Building Materials Industry		Construction Industry	
	Number Employed ⁽¹⁾ (thousands)	Capital Expenditures (millions of dollars)	Number Employed (thousands)	Capital Expenditures (millions of dollars)
1945.....	— ⁽²⁾	11	171	17
1946.....	84	16	227	21
1947.....	98	28	252	32
1948.....	105	32	289	48
1949 ⁽³⁾	110	27	323	36

(1) Employment reported by firms with 15 or more employees.

(2) Not available.

(3) Preliminary.

There has been a steady increase in the production of building materials over the last four years, as can be seen from the examples given in Table 3 headed "Production of selected materials in Canada, 1939, 1945 and 1949".

TABLE 3.—PRODUCTION OF SELECTED MATERIALS IN CANADA, 1939, 1945 AND 1949

Material	Unit	Production		
		1939	1945	1949 ⁽¹⁾
Lumber.....	Billion Feet.....	4.0	4.5	5.3
Pig Iron.....	Million Net Tons.....	0.9	1.8	2.2
Cement.....	Million Barrels.....	5.7	7.8	16.1
Gypsum Wallboard.....	Million Square Feet.....	78.2	134.0	228.1
Cast Iron Soil Pipe and Fittings.....	Thousand Tons.....	16.5	20.8	45.4
Bath Tubs.....	Thousand Tubs.....	42.4 ⁽²⁾	56.3 ⁽²⁾	132.5
Furnaces—Warm Air and Heating Boilers..	Thousand Furnaces.....	39.6	48.7	89.4

(1) Preliminary.

(2) Estimated.

During 1949 there was a marked improvement in the supply of building materials in Canada. Production was more balanced and imports of scarce items were increased. This permitted a smoother flow of materials from manufacturers to construction sites and delays encountered in previous years were less frequent. In spite of the fact that the volume of construction was greater than in the previous year, the average house took approximately the same length of time to build.

Production of a number of materials increased, in some cases, more than was expected at the beginning of the year. Important gains were made in sanitary ware and cement and gypsum products, all of which were in short supply during 1948. This was largely attributed to increased supplies of raw materials or more effective use of existing manufacturing facilities. In several cases, production was either lower or did not increase to the extent of productive capacity, e.g. certain roofing products, paints and certain iron and steel products. This was because in some cases supplies had already caught up with demand. Imports of building materials were, with a few notable exceptions, higher in 1949 than in the previous year. Shipments from foreign sources were, therefore, partially responsible for the improvement in availability of building materials which took place during the year.

A substantial increase in the supply of iron and steel was of special importance in permitting the completion of last year's investment program. Output of Canadian plants showed a marked increase during the first half of 1949. While this increase was largely offset by lower production of specialty steels later in the year, this was not reflected in the availability of scarce building materials. Last year 2.2 million tons of pig iron were manufactured, 2 per cent more than that produced in 1948. Domestic production of steel ingots and castings of about 3.2 million tons was a fraction of a percent lower than last year.

The improvement in the overall domestic supply of iron and steel was due largely to a marked increase in the flow of imports from the United States. These were about 50 per cent higher during the first six months of 1949 than they were during the corresponding period in 1948. Early last year, it was expected that imports of steel mill products would continue to be limited by the general steel shortage in North America. However, United States primary producers began to catch up on their backlogs of orders around the beginning of the year and shipments to Canada rose rapidly thereafter. These deliveries, together with the larger output of domestic mills in the first half of the year, eased the acute shortage of iron and steel products which existed in 1948. Building supplies such as sanitary ware, heating equipment and cast iron soil and pressure pipe therefore became more readily available towards the end of 1949.

The steel strike in the United States has affected the supply situation here by bringing about a reduction in imports during the fourth quarter of last year. Trade statistics reveal, however, that the total tonnage of primary iron and steel products received from the United States during the year was 15 per cent above that received in 1948.

The Canadian primary iron and steel industry managed to attain a remarkably high level of production during the first half of 1949, despite raw materials difficulties in the form of inferior grades of ore and coal. There was also a need for furnace and equipment repairs deferred from the war years. On the other hand, steel production was no longer limited by a shortage of scrap. Adequate supplies of this and other raw materials, together with the introduction of new facilities, resulted in greater labour productivity and a corresponding increase in output. A number of steps taken by the Federal Government also served to make this possible. Assistance was given in the procurement of steel scrap from abroad. This took the form of a subsidy and was discontinued when war-depleted inventories reached satisfactory levels late in 1949. Throughout the year, the Government also directed and assisted the movement of a large tonnage

of semi-finished steel from mills with insufficient finishing capacity to those capable of finishing this steel into needed mill forms. This contributed to increased production of steel sheet, plates, rods and bars, etc.

As far as building materials are concerned, the improved supply position has been due partly to increased shipments of pig iron to the foundry industry and, more important still, to a marked increase in the availability of raw materials and building supplies in the United States. Adequate supplies of steel scrap permitted domestic primary iron and steel producers to divert greater tonnages of pig iron to foundries which account for a large proportion of the building materials made from this metal, e.g. soil and pressure pipe and fittings, sanitary ware, radiators and production parts for furnaces. Iron scrap also became readily available. Prior to the easing of the steel supply situation in the United States late in the spring, special arrangements were made with the United States Government to permit the importation of sufficient nail rod and wire to keep Canadian plants operating at capacity. Imports of finished nails have been heavy, increasing from 6,300 tons in 1948 to 13,300 tons in 1949. Canadian mills have also proceeded to manufacture nails at a higher rate. There was also a marked increase in the supply of rolling mill products which were scarce during the previous year. Allocations of black steel sheets and galvanized steel sheet to furnace manufacturers and distributors were no longer necessary after June 30 and substantial imports of skelp from the United States allowed steel pipe manufacturers to accumulate substantial inventories after the middle of the year. Structural and steel mill products for construction purposes also moved into a position of adequate supply through the summer months as increased tonnages became more readily available from the United States. At the end of 1949, practically all iron and steel products were more readily available showing a decided improvement over the position at the beginning of the year. However, wire nails and certain gauges of steel sheet and small sizes of pipe were still difficult to obtain in necessary quantities.

Domestic supplies of lumber and other wood products also improved substantially during the first 9 months of 1949. Thus, although it was still difficult to get large quantities of the higher grades, it became possible to obtain most varieties of lumber at relatively short notice and to purchase flooring, veneers, and plywoods, all of which were in short supply in 1948. Total Canadian output of sawn lumber reached approximately 5.3 billion board feet, 4 per cent down from that recorded in 1948. Production in British Columbia showed little change in 1949 relative to the previous year. In the rest of Canada it was only slightly down. Increased supplies were, therefore, available for the domestic market, 55 per cent of total output being sold here during the year. This is the highest proportion of Canadian lumber marketed inside the country during any war or post-war year. Production of hardwood flooring rose to 78 million board feet or double that recorded in 1946. Most varieties of plywood were in easy supply principally because of limited exports, particularly to the United Kingdom.

During the last few months of 1949, the United States market for Canadian lumber has witnessed a marked increase in demand. Domestic mill inventories have been depleted as a result. Furthermore, lower prices for plywood have served to reinforce the Canadian demand for this commodity and in recent months demand has exceeded production. On the other hand, import controls were discontinued on lumber and timber building products in April, 1949, and supplies from foreign sources are now readily available.

Marked gains took place in the output of a number of key building materials which were in relatively short supply early in 1949. Production increases were recorded in the case of twenty out of the thirty commodities covered in this report, while, in nine others, production was below that reached in the previous year. The figures for individual materials are shown in Table 4, entitled "Production of selected building materials in Canada, 1948 and 1949". In a number

of instances, output was down where construction materials were already in satisfactory supply. In a few others, such as gypsum wallboard and asphalt roll roofing, existing plant capacity was used to advantage in the manufacture of alternative supplies for which demand was more urgent. Production intentions of manufacturers at the beginning of 1949 were realized in the case of twenty building materials, while in ten cases production was below that forecast due principally to a decline in demand for their products.

TABLE 4.—PRODUCTION OF SELECTED BUILDING MATERIALS IN CANADA,
1948 AND 1949

Material	Unit	Production 1948	Production 1949 ⁽¹⁾	Percentage Change from 1948
CEMENT AND CEMENT PRODUCTS—				
Cement.....	Million Barrels.....	14.0	16.1	+15.0
Concrete Brick and Building Blocks.....	Million Pieces.....	72.0 ⁽²⁾	80.0	+11.1
Cement Pipe and Tile ⁽³⁾	Thousand Tons.....	159.3	117.1	-26.5
CLAY PRODUCTS—				
Building Brick (incl. Sand-Lime Brick).....	Million Bricks.....	347.1 ⁽²⁾	369.5	+ 6.5
Vitrified Flue Linings.....	Million Linear Feet.....	1.2	1.2	0.0
Vitrified Sewer Pipe.....	Million Linear Feet.....	5.1	4.4	-13.7
Structural Tile.....	Thousand Tons.....	157.3	173.0	+10.0
MINERAL WOOL PRODUCTS—				
Mineral Wool Batts (All sizes).....	Million Square Feet.....	93.4	136.4	+46.0
Bulk Mineral Wool (Granulated and Loose).....	Million Cubic Feet.....	10.1	14.7	+45.5
GYPSUM PRODUCTS—				
Gypsum Wallboard.....	Million Square Feet.....	237.7	223.1	- 4.0
Gypsum Lath.....	Million Square Feet.....	153.0	176.9	+15.6
Gypsum Hardwall Plaster.....	Thousand Tons.....	137.1	164.0	+19.6
ROOFING PRODUCTS—				
Asphalt Shingles (All weights).....	Million Squares.....	2.0	2.1	+ 5.0
Smooth and Mineral Surfaced Rolls.....	Million Squares.....	2.5	2.0	-20.0
PLUMBING SUPPLIES—				
Cast Iron Soil Pipe and Fittings.....	Thousand Tons.....	45.7	45.4	- 0.7
Cast Iron Pressure Pipe and Fittings.....	Thousand Tons.....	93.4	91.4	- 2.1
Steel Pipe and Fittings.....	Thousand Tons.....	132.0	184.4	+39.7
SANITARY WARE—				
Bath Tubs.....	Thousand Tubs.....	102.1	132.5	+29.8
Sinks.....	Thousand Sinks.....	139.6	195.5	+40.0
Wash Basins.....	Thousand Basins.....	109.7	140.2	+27.8
HEATING EQUIPMENT—				
Furnaces—Warm Air and Heating Boilers.....	Thousand Furnaces.....	80.7	89.4	+10.8
Electric Water Heaters.....	Thousand Heaters.....	146.7	155.5	+ 6.0
Hot Water Storage Tanks (Range Boilers).....	Thousand Tanks.....	180.6	197.8	+ 9.5
Cast Iron Radiators.....	Million Square Feet.....	8.6	6.4	-25.6
OTHER IRON AND STEEL PRODUCTS—				
Wire Nails and Spikes.....	Thousand Tons.....	86.8	89.7	+ 3.3
Builders' Hardware.....	Million Dollars.....	9.4	9.8	+ 4.3
MISCELLANEOUS PRODUCTS—				
Common, Colourless Window Glass ⁽⁴⁾	Million Square Feet.....	96.3	64.6	-32.9
Paints, Pigment and Varnishes.....	Million Dollars.....	90.2	87.1	- 3.4
Non-Metallic Sheathed Cable.....	Million Linear Feet.....	81.1	87.3	+ 7.6
Rigid Insulating Boards.....	Million Square Feet ⁽⁵⁾	220.7	222.7	+ 0.9

(1) Preliminary.

(2) Estimated (for coverage see Section 4).

(3) Includes drain, sewer and water pipe and culvert tile.

(4) Imports.

(5) $\frac{1}{2}$ " Basis.

TABLE 5.—HISTORICAL PRODUCTION OF SELECTED BUILDING MATERIALS
IN CANADA

Material	Unit	Pre-War Peak Production ⁽¹⁾		1939	War Peak Production ⁽²⁾		Post-War Production					
		Year	Volume		Year	Volume	1945	1946	1947	1948	1949 ⁽³⁾	1950 ⁽⁴⁾
CEMENT AND CEMENT PRO- DUCTS—												
Cement.....	Mill. Brls.....	1929	12.3	5.7	1942	8.6	7.8	10.7	12.2	14.0	16.1	16.7
Concrete Brick and Build- ing Blocks.....	Mill. Pieces...	—	—	—	—	—	—	49.4	63.2	72.0 ⁽⁵⁾	80.0	83.0
Cement Pipe and Tile ⁽⁶⁾ ...	Thous. Tons..	—	—	—	—	—	—	94.8	134.7	159.3	117.1	119.0
CLAY PRODUCTS—												
Building Brick (incl. Sand- Lime Brick).....	Mill. Bricks..	1929	537.0 ⁽⁷⁾	176.8 ⁽⁷⁾	1941	228.1 ⁽⁷⁾	209.0 ⁽⁸⁾	305.7 ⁽⁸⁾	334.4 ⁽⁸⁾	347.1 ⁽⁸⁾	369.5	381.6
Vitrified Flue Linings.....	Mill. Lin. Ft..	—	—	—	—	—	—	0.9	1.0	1.2	1.2	1.3
Vitrified Sewer Pipe.....	Mill. Lin. Ft..	—	—	—	—	—	—	3.1	4.0	5.1	4.4	4.5
Structural Tile.....	Thous. Tons..	1929	221.8 ⁽⁷⁾	86.7 ⁽⁷⁾	1941	117.5 ⁽⁷⁾	90.2	134.4	150.2	157.3	173.0	185.5
MINERAL WOOL PRODUCTS—												
Mineral Wool Batts (All sizes).....	Mill. Sq. Ft..	1939	9.1	9.1	1943	41.1	34.4	54.8	82.3	93.4	136.4	149.0
Bulk Mineral Wool (Gran- ulated and Loose).....	Mill. Cu. Ft..	1939	1.8	1.8	1944	4.5	5.4	10.1	9.8	10.1	14.7	16.9
GYPSUM PRODUCTS—												
Gypsum Wallboard.....	Mill. Sq. Ft..	1939	78.2	78.2	1943	192.2	134.0	203.4	213.7	237.7	228.1	237.6
Gypsum Lath.....	Mill. Sq. Ft..	—	—	—	—	—	59.9	75.0	111.1	153.0	176.9	188.2
Gypsum Hardwall Plaster.....	Thous. Tons..	1939	69.9	69.9	1941	80.2	67.1	97.3	119.7	137.1	164.0	168.4
ROOFING PRODUCTS—												
Asphalt Shingles (All weights).....	Mill. Sqs.....	1939	0.5	0.5	1944	1.1	1.4	2.0	2.1	2.0	2.1	2.1
Smooth and Mineral Sur- faced Rolls.....	Mill. Sqs.....	1939	1.3	1.3	1944	2.2	2.4	3.0	3.4	2.5	2.0	2.0
PLUMBING SUPPLIES—												
Cast Iron Soil Pipe and Fittings.....	Thous. Tons..	1929	21.4	16.5	1941	26.4	20.8	25.1	32.5	45.7	45.4	45.7
Cast Iron Pressure Pipe and Fittings.....	Thous. Tons..	1931	80.6	33.1	1942	50.0	45.9	65.2	77.7	93.4	91.4	91.4
Steel Pipe and Fittings....	Thous. Tons..	1929	137.1	90.5	1941	158.4	139.3	115.7	118.0	132.0	184.4	184.4
SANITARY WARE—												
Bath Tubs.....	Thous. Tubs..	—	—	42.4 ⁽⁸⁾	1942	67.0 ⁽⁸⁾	56.3 ⁽⁸⁾	57.9	81.1	102.1	132.5	157.5
Sinks.....	Thous. Sinks..	—	—	—	—	—	—	103.7	120.7	139.6	195.5	234.4
Wash Basins.....	Thous. Basins	—	—	—	—	—	—	78.6	91.7	109.7	140.2	160.9
HEATING EQUIPMENT—												
Furnaces—Warm Air and Heating Boilers.....	Thous. Furn's	1929	49.3	39.6	1941	44.4	48.7	60.9	72.4	80.7	89.4	89.4
Electric Water Heaters....	Thous. Heat's	1937	24.2	23.0	1941	36.5	57.2	76.6	121.0	146.7	155.5	195.0
Hot Water Storage Tanks (Range Boilers).....	Thous. Tanks..	1939	96.8	96.8	1940	98.6	128.8	138.4	157.7	180.6	197.8	217.0
Cast Iron Radiators.....	Mill. Sq. Ft..	1937	5.0	5.0	1944	7.0	7.2	8.0	8.7	8.6	6.4	6.1
OTHER IRON AND STEEL PRO- DUCTS—												
Wire Nails and Spikes.....	Thous. Tons..	1939	66.5	66.5	1941	82.6	70.0	58.9	77.4	86.8	89.7	89.7
Builders' Hardware.....	Mill. Dollars.	1929	3.8	2.5	1941	4.3	4.3	5.6	5.9	9.4	9.8	9.8
MISCELLANEOUS PRODUCTS—												
Common, Colourless Win- dow Glass ⁽⁹⁾	Mill. Sq. Ft..	1929	51.4	48.8	1944	45.3	39.8	43.7	70.2	96.3	64.6	70.0
Paints, Pigments and Var- nishes.....	Mill. Dollars.	1929	27.1	25.9	1944	49.1	52.8	62.5	78.9	90.2	87.1	89.4
Non-Metallic Sheathed Cable.....	Mill. Lin. Ft..	—	—	—	—	—	—	45.4	67.0	81.1	87.3	89.5
Rigid Insulating Boards...	Mill. Sq. Ft. ⁽⁹⁾	1937	107.1	98.1	1941	169.4	164.7	161.8	203.1	220.7	222.7	222.7

(1) Back to 1919 where figures are available.

(2) Covering full war years 1940-1944.

(3) Preliminary.

(4) Production intentions at first of year.

(5) Estimated (for coverage see Section 4).

(6) Estimates for drain, sewer and water pipe and culvert tile.

(7) Factory sales.

(8) Imports.

(9) $\frac{1}{2}$ " Basis.

For six building materials, production gains over 1948 were 20 per cent or more; the most noteworthy items falling in this category were the two mineral wool products, steel pipe and the three sanitary ware items. For another six materials, increases in production ranged from 10 to 20 per cent; the most notable of these being Portland cement and certain cement products such as brick and building blocks, structural tile, gypsum lath and hardwall plaster and domestic heating furnaces. For building brick, asphalt shingles, water heaters, hot water storage tanks, wire nails and spikes, builders' hardware, non-metallic sheathed cable and pulp and fibre rigid boards increases were more modest. There were small decreases in the production of gypsum wallboard, cast iron soil pipe, cast iron pressure pipe and paints, pigments and varnishes. A sharper drop was recorded in the output of cement pipe and tile, clay sewer pipe, certain roofing products (smooth and mineral surfaced rolls), cast iron radiators and in the importation of common window glass. Some of these declines were due to a lower level of demand. Manufacture of all but eleven of the building materials covered in this survey reached all-time highs during 1949.

In order to give some historical perspective on the volume of production of a number of building materials, statistics have been compiled showing the pre-war peak, production in 1939, the wartime peak and production in the post-war years. These are shown in Table 5 entitled "Historical production of selected building materials in Canada".

The main reasons for increases in production, which were generally less percentage-wise than those which took place in 1948, are briefly as follows: First, further efforts were made to obtain greater production from existing facilities; secondly, certain plants were enlarged during 1949 and several new establishments, which came into operation late in 1948, worked at or near capacity throughout the year (e.g. cement, clay products, sanitary ware, etc.); thirdly, scarce raw materials were diverted to the manufacture of building materials in which acute shortages continued to exist; and finally, the Government arranged for the procuring of foreign supplies of steel during the early months of the year.

The most serious continuing shortages in the field of building materials throughout 1949 were as follows: Building brick, cement and cement products, gypsum lath and wallboard, standard rigid galvanized electrical conduit, steel pipe in small sizes and galvanized steel sheet in light gauges. Other materials which were only in short to fair supply during the year were the various sanitary ware items, vitrified clay products and wire nails. Seasonal shortages of asphalt products and warm air furnaces were also encountered, but these were readily available by the end of the year.

Supplies of builders' hardware, cast iron soil pipe and fittings and pulp and fibre rigid boards were generally adequate although local shortages occasionally resulted from poor distribution. Supplies of other commodities were equal to or exceeded demand. These included mineral wool products, cast iron pressure pipe, electrical wiring and wiring devices, sawn lumber, common window glass and paints, pigments and varnishes. The changes in domestic supply for several important building materials from 1948 to 1949 are shown in Table 6, headed "Domestic supply of selected building materials in Canada, 1948 and 1949".

The domestic supply of most materials for which data are available was not greatly affected by sales abroad. Export controls were lifted on commodities as they came into adequate supply across the country. Paints, pigments and varnishes, glass, wire screen cloth, aluminum nails, electrical wiring and wiring devices (except conduit), asbestos building products, asphalt or tarred products (except building or sheathing papers), stoves and domestic heating furnaces were all freely exportable from Canada on January 1, 1950.

TABLE 6.—DOMESTIC SUPPLY OF SELECTED BUILDING MATERIALS IN CANADA, 1948 AND 1949

Materials	Unit	Domestic Supply ⁽¹⁾		Percentage Change from 1948
		1948	1949 ⁽²⁾	
Cement.....	Million Barrels.....	15.1	18.4	+21.9
Building Brick (Clay and Sand-Lime).....	Million Bricks.....	350.4	387.1	+10.5
Mineral Wool Batts.....	Million Square Feet.....	93.5	136.5	+46.0
Gypsum Hardwall Plaster.....	Thousand Tons.....	146.4	172.6	+17.9
Cast Iron Radiators.....	Million Square Feet.....	8.6	6.4	-25.6
Wire Nails and Spikes.....	Thousand Tons.....	91.2	102.5	+12.4
Common, Colourless Window Glass.....	Million Square Feet.....	96.4	64.6	-33.0
Paints, Pigments and Varnishes.....	Million Dollars.....	90.5	97.4	+ 7.6
Rigid Insulating Boards.....	Million Square Feet ⁽³⁾ ...	180.6	186.4	+ 3.2

(1) Production plus imports minus exports.

(2) Preliminary.

(3) $\frac{1}{2}$ " Basis.

In a number of cases, imports contributed to the alleviation of serious shortages (e.g. cement, building brick, gypsum lath, sanitary ware, wire nails, steel pipe and galvanized sheet). There were also considerable imports of hinges and butts, clay sewer pipe and tarred roofing and sheathing paper. Emergency import controls were relaxed so that needed supplies of gypsum lath and iron and steel sanitary ware could be brought into the country. Nearly all of Canada's window glass was obtained from the United Kingdom, Belgium, Czechoslovakia and the United States. Compared with 1948, these imports were down 33 per cent and all demands were satisfied. On the other hand, exports of building materials were not large either in volume or dollar value.

More detailed statistics on exports and imports of building materials in the last three years are shown in Table 7, entitled "Exports and imports of selected building materials, 1947, 1948 and 1949". Domestic supply and disappearance for the same group of building materials are shown for the same period in Table 8, headed "Domestic supply and domestic disappearance of selected building materials in Canada, 1947, 1948 and 1949".

Finally, statistics on inventories of a number of building materials and the ratio of inventories to sales are shown in Table 9, headed "Stocks and stocks-to-sales ratios of selected building materials in Canada, December 1947, 1948 and 1949".

TABLE 7.—EXPORTS AND IMPORTS OF SELECTED BUILDING MATERIALS, CANADA, 1947, 1948 AND 1949

Material ⁽¹⁾	Unit	Exports			Imports		
		1947	1948	1949 ⁽²⁾	1947	1948	1949 ⁽²⁾
Cement.....	Thousand Barrels.....	88.0	73.0	19.2	1,248.6	1,120.7	2,284.0
Building Brick (Clay and Sand-Lime).....	Million Bricks.....	4.2	4.9	4.3	8.9	8.3	21.9
Mineral Wool Batts.....	Million Square Feet.....	— ⁽³⁾	— ⁽³⁾	— ⁽³⁾	5.8 ⁽⁴⁾	0.1 ⁽⁴⁾	0.1 ⁽⁴⁾
Gypsum Hardwall Plaster.....	Thousand Tons.....	1.4	0.7	0.2	10.1	10.0	8.7
Cast Iron Radiators.....	Thousand Square Feet.....	— ⁽³⁾	— ⁽³⁾	— ⁽³⁾	43.8	0	3.3
Wire Nails and Spikes.....	Tons.....	32	1,855	495	4,147	6,315	13,305
Common, Colourless, Window Glass.....	Million Square Feet.....	0.1 ⁽⁵⁾	0.1 ⁽⁵⁾	— ⁽⁵⁾	70.2	96.4	64.6
Paints, Pigments and Varnishes.....	Million Dollars.....	7.3	6.0	3.6	13.4	14.3	13.9
Rigid Insulating Boards.....	Million Square Feet ⁽⁶⁾ ...	51.1	40.1	38.3	39.9	— ⁽⁷⁾	— ⁽⁷⁾

(1) Comparable data are available for only nine of the thirty building materials reviewed.

(2) Preliminary.

(3) No exports reported.

(4) Imports reported in pounds have been converted to square feet on a 3 inch basis, assuming imports were all batt wool.

(5) Glass of foreign origin only—the 1949 exports totalled only 831 square feet which is too small to show.

(6) $\frac{1}{2}$ " Basis.

(7) Imports of pulp and fibre wallboard are not permitted under the Emergency Exchange Conservation Act.

TABLE 8.—DOMESTIC SUPPLY AND DOMESTIC DISAPPEARANCE OF SELECTED BUILDING MATERIALS IN CANADA, 1947, 1948 AND 1949

Material	Unit	Domestic Supply ⁽¹⁾			Domestic Disappearance ⁽²⁾		
		1947	1948	1949 ⁽³⁾	1947	1948	1949 ⁽³⁾
Cement.....	Million Barrels.....	13.4	15.1	18.4	13.1	15.2	18.2
Building Brick (Clay and Sand-Lime)	Million Bricks.....	339.1	350.4	387.1	336.0	351.2	379.0
Mineral Wool Batts.....	Million Square Feet.....	88.1	93.5	136.5	87.3	93.5	135.1
Gypsum Hardwall Plaster.....	Thousand Tons.....	128.3	146.4	172.6	128.3	146.0	172.6
Cast Iron Radiators.....	Million Square Feet.....	9.0	8.6	6.4	9.0	8.6	6.4
Wire Nails and Spikes.....	Thousand Tons.....	81.5	91.2	102.5	— ⁽⁴⁾	— ⁽⁴⁾	— ⁽⁴⁾
Common, Colourless Window Glass...	Million Square Feet.....	70.1	96.4	64.6	— ⁽⁴⁾	— ⁽⁴⁾	— ⁽⁴⁾
Paints, Pigments and Varnishes...	Million Dollars.....	85.0	90.5	97.4	— ⁽⁴⁾	— ⁽⁴⁾	— ⁽⁴⁾
Rigid Insulating Boards.....	Million Square Feet ⁽⁵⁾ ...	191.9	180.6	186.4	— ⁽⁴⁾	— ⁽⁴⁾	— ⁽⁴⁾

(1) Production plus imports minus exports.

(2) Production plus imports plus net changes in stocks between the beginning and end of the year minus exports.

(3) Preliminary.

(4) Not available.

(5) $\frac{3}{8}$ " Basis.

TABLE 9.—STOCKS AND STOCKS-TO-SALES RATIOS OF SELECTED BUILDING MATERIALS IN CANADA, DECEMBER, 1947, 1948 AND 1949

Material ⁽¹⁾	Stocks at December 31				Ratio of Stocks at Dec. 31 to Dec. Sales		
	Unit	1947	1948	1949 ⁽²⁾	1947	1948	1949 ⁽²⁾
CEMENT AND CEMENT PRODUCTS—							
Cement.....	Million Barrels.....	0.7	0.6	0.8	1.16	0.82	1.06
Concrete Brick and Building Blocks...	Million Pieces.....	2.2 ⁽³⁾	2.7 ⁽³⁾	6.1	0.68	0.58	1.51
Cement Pipe and Tile ⁽⁴⁾	Thousand Tons.....	10.4	12.9	20.0	1.17	1.66	2.75
CLAY PRODUCTS—							
Building Brick (incl. Sand-Lime Brick)	Million Bricks.....	21.2 ⁽³⁾	21.2 ⁽³⁾	32.3	0.80	0.73	1.20
Vitrified Flue Linings.....	Thousand Linear Ft.....	26.2	19.0	35.2	0.27	0.20	0.34
Vitrified Sewer Pipe.....	Thousand Linear Ft.....	45.5	85.9	114.1	0.13	0.20	0.35
Structural Tile.....	Thousand Tons.....	7.6	9.1	14.5	0.64	0.69	1.12
MINERAL WOOL PRODUCTS—							
Mineral Wool Batts (All sizes).....	Million Square Ft....	0.6	0.6	2.0	0.08	0.05	0.18
Bulk Mineral Wool (Granulated and Loose).....	Million Cubic Ft....	0.1	0.3	0.5	0.12	0.21	0.38
GYPNUM PRODUCTS—							
Gypsum Wallboard.....	Million Square Ft....	1.2	1.6	1.2	0.06	0.08	0.06
Gypsum Lath.....	Million Square Ft....	0.6	0.5	0.7	0.06	0.04	0.05
Gypsum Hardwall Plaster.....	Thousand Tons.....	0.5	0.9	0.9	0.05	0.08	0.06
PLUMBING SUPPLIES—							
Cast Iron Soil Pipe and Fittings.....	Thousand Tons.....	1.6	2.9	5.0	0.55	0.68	1.50
Cast Iron Pressure Pipe and Fittings...	Thousand Tons.....	2.3	4.7	8.3	0.71	0.65	1.17
Steel Pipe and Fittings.....	Thousand Tons.....	6.7	8.9	17.6	0.77	0.75	1.16
SANITARY WARE—							
Bath Tubs.....	Thousand Tubs.....	1.5	0.6	1.2	0.20	0.07	0.13
Sinks.....	Thousand Sinks.....	4.8	4.3	13.9	0.42	0.28	0.92
Wash Basins.....	Thousand Basins.....	6.8	3.1	6.8	0.84	0.27	0.46
HEATING EQUIPMENT—							
Electric Water Heaters.....	Thousand Heaters...	3.9	12.1	18.1	1.18	1.79	1.20
Hot Water Storage Tanks (Range Boilers).....	Thousand Tanks.....	0.3	0.2	1.2	0.02	0.02	0.11
Cast Iron Radiators.....	Million Square Ft....	0.5	0.6	0.6	0.71	0.74	0.94
OTHER PRODUCTS—							
Non-Metallic Sheathed Cable.....	Million Linear Ft....	0.8	0.8	1.4	0.02	0.09	0.15

(1) No information available for roofing products, furnaces, wire nails, builders' hardware, glass, paints and rigid boards.

(2) Preliminary.

(3) Estimated (for coverage see Section 4).

(4) Estimates for drain, sewer and water pipe and culvert tile.

4. DEFINITIONS, COVERAGE AND SOURCES

This year the report deals with the same building materials that were covered in Outlook 1949. The thirty building materials which enter directly into new construction or into the repair and maintenance of buildings and other structures dealt with, fall into the following groups: cement and cement products (3 items), clay products (4 items), mineral wool products (2 items), gypsum products (3 items), roofing products (2 items), plumbing supplies (3 items), sanitary ware (3 items), heating equipment (4 items), other iron and steel products (2 items) and miscellaneous building materials (4 items). In addition, primary iron and steel and lumber are covered since the supply of these materials is of importance in construction and in the manufacture of building materials as well as of machinery and equipment.

TABLE 10.—PRODUCTION INTENTIONS AND REALIZATION FOR SELECTED BUILDING MATERIALS IN CANADA, 1949

Material	Unit	Production Intentions	Realization ⁽¹⁾	Percentage Realization ⁽¹⁾ Exceeded or Fell Short of Intentions
CEMENT AND CEMENT PRODUCTS—				
Cement.....	Million Barrels.....	15.4	16.1	+ 4.5
Concrete Brick and Building Blocks...	Million Pieces.....	72.5	80.0	+10.3
Cement Pipe and Tile ⁽²⁾	Thousand Tons.....	162.5	117.1	-27.9
CLAY PRODUCTS—				
Building Brick (incl. Sand-Lime Brick)	Million Bricks.....	360.9	369.5	+ 2.4
Vitrified Flue Lining.....	Million Linear Feet....	1.2	1.2	0.0
Vitrified Sewer Pipe.....	Million Linear Feet....	5.1	4.4	-13.7
Structural Tile.....	Thousand Tons.....	167.5	173.0	+ 3.2
MINERAL WOOL PRODUCTS—				
Mineral Wool Batts (All sizes).....	Million Square Feet...	118.6	136.4	+15.0
Bulk Mineral Wool (Granulated and Loose).....	Million Cubic Feet.....	13.3	14.7	+10.5
GYPSUM PRODUCTS—				
Gypsum Wallboard.....	Million Square Feet...	233.5	228.1	- 4.4
Gypsum Lath.....	Million Square Feet...	167.4	176.9	+ 5.7
Gypsum Hardwall Plaster.....	Thousand Tons.....	145.0	164.0	+13.1
ROOFING PRODUCTS—				
Asphalt Shingles (All weights).....	Million Squares.....	2.2	2.1	- 4.5
Smooth and Mineral Surfaced Rolls....	Million Squares.....	2.3	2.0	-13.0
PLUMBING SUPPLIES—				
Cast Iron Soil Pipe and Fittings.....	Thousand Tons.....	48.8	45.4	- 7.0
Cast Iron Pressure Pipe and Fittings...	Thousand Tons.....	93.1	91.4	- 1.8
Steel Pipe and Fittings.....	Thousand Tons.....	133.5	184.4	+38.1
SANITARY WARE—				
Bath Tubs.....	Thousand Tubs.....	118.7	132.5	+11.6
Sinks.....	Thousand Sinks.....	164.9	195.5	+18.6
Wash Basins.....	Thousand Basins.....	124.7	140.2	+12.4
HEATING EQUIPMENT—				
Furnaces—Warm Air and Heating Boilers.....	Thousand Furnaces....	88.0	89.4	+ 1.6
Electric Water Heaters.....	Thousand Heaters....	147.2	155.5	+ 5.6
Hot Water Storage Tanks (Range Boilers).....	Thousand Tanks.....	162.4	197.8	+21.8
Cast Iron Radiators.....	Million Square Feet....	9.3	6.4	-31.2
OTHER IRON AND STEEL PRODUCTS—				
Wire Nails and Spikes.....	Thousand Tons.....	85.7	89.7	+ 4.7
Builders' Hardware.....	Million Dollars.....	8.4	9.8	+16.7
MISCELLANEOUS PRODUCTS—				
Common, Colourless Window Glass ⁽³⁾ ...	Million Square Feet....	80.0	64.6	-19.3
Paints, Pigments and Varnishes.....	Million Dollars.....	83.2	87.1	+ 4.7
Non-Metallic Sheathed Cable.....	Million Linear Feet....	82.0	87.3	+ 6.5
Rigid Insulating Boards.....	Million Square Feet ⁽⁴⁾ ...	248.0	222.7	-10.2

⁽¹⁾ Preliminary.

⁽²⁾ Includes drain, sewer and water pipe and culvert tile.

⁽³⁾ Imports.

⁽⁴⁾ $\frac{1}{2}$ " Basis.

It should be borne in mind that this report is only concerned with an overall appraisal of the Canadian production and supply position and prospects. No account is taken of regional variations. Data are obtained from current official statistical sources or from special surveys. All figures for 1949, the latest year, are preliminary. Forecasts for 1950 represent producers' intentions as seen by them a year in advance. In past years these figures usually have been found to be somewhat conservative. A comparison of production intentions and actual production for a number of building materials in 1949 is shown in Table 10, headed "Production intentions and realization for selected building materials in Canada, 1949". No allowance is made in these forecasts for unexpected interruptions in production which may occur due to plant breakdowns, strikes, etc. In connection with forecasts of domestic supply, it should be borne in mind that Canada is not a large exporter or importer of manufactured building materials and supplies.

Production intentions for 1950 are based on surveys of the expected output of nearly all of the companies which produce the building materials covered in this report. The questionnaires were distributed by the Dominion Bureau of Statistics and estimates of 1950 output were prepared by the Economic Research and Development Branch, Department of Trade and Commerce, for all but a few items. These estimates were then reviewed by the appropriate agencies of the Department. Special inquiries were made by officials of the Building Materials Branch, Department of Trade and Commerce, in a few cases where the production intentions indicated by the survey seemed unduly high or low. Production intentions for 1950 as published here represent final intentions as they existed at the beginning of 1950.

The statistics used in this report are based on data collected by the Dominion Bureau of Statistics except where otherwise noted. In making use of these statistics, the following points should be kept in mind:

All 1949 figures are preliminary;

Stocks and sales figures are as reported by the producers only and do not include inventories or sales at the wholesale or retail levels;

While the production intentions shown for 1950 represent the best available information at the time of publication, many factors may interfere with these production plans during 1950; e.g., prolonged management-labour disputes, delays in the procurement of machinery, equipment, materials and parts, or an adequate supply of skilled labour.

Sources and explanatory notes for the materials covered in this report are given below.

LUMBER as used here refers to sawn lumber only. The 1948 and 1949 production figures and the production intentions for 1950 are all estimates supplied by the Timber Controller, Department of Trade and Commerce.

PIG IRON covers basic, malleable and foundry iron. The estimate of the production intentions for 1950 was prepared by the Steel Controller, Department of Trade and Commerce.

CEMENT refers to the Portland type only. The unit of measure used is the barrel of 350 pounds. Sales are shipments reported by producers plus the quantities used at the plants.

CONCRETE BRICK AND BUILDING BLOCKS comprise concrete brick, concrete solid blocks, concrete hollow blocks, concrete cinder blocks and concrete chimney blocks.

No information on a unit basis is available prior to 1946. The figures shown for 1948 and 1949 are estimated from data supplied by the majority of producing firms in the field.

CEMENT PIPE AND TILE includes cement drain pipe, sewer pipe, water pipe and culvert tile. No information on a unit basis is available prior to 1946.

BUILDING BRICK comprises face and common clay brick and sand-lime brick. All figures used are estimates based on data supplied by the majority of the producers. Imports have been converted from tons to thousands of bricks to assure comparability with other data.

VITRIFIED FLUE LINING AND VITRIFIED CLAY SEWER PIPE. Data on a unit basis are not available for these two products prior to 1946.

MINERAL WOOL BATTS. Figures are for 1-inch, 2-inch, 3-inch and 4-inch batts. Imports which are classified as "mineral wool, n.o.p." are reported in pounds and these figures have been converted to square feet, 3-inch basis, on the assumption these imports were batt wool.

BULK MINERAL WOOL consists of granulated mineral wool and bulk or loose mineral wool.

GYPHUM LATH. No data are available prior to 1945.

GYPHUM HARDWALL PLASTER. Exports and imports are classified as "plaster of paris wall plaster".

ASPHALT SHINGLES comprises asphalt shingles of all weights.

STEEL PIPE AND FITTINGS. This group consists of butt-weld and lap-weld steel pipe, steel pipe fittings and seamless steel tubing. The latter type has been added to this classification because of its increased use in building as a substitute for butt-weld pipe.

BATH TUBS. Production figures prior to 1946 are estimated from reports made to the Dominion Bureau of Statistics by firms accounting for about three-quarters of the 1947 and 1948 output.

SINKS comprise flat and roll rim sinks, sink and drain board combinations and sink and tray combinations. Statistics on a unit basis are not available prior to 1946.

WASH BASINS. No data are available prior to 1946.

FURNACES. This classification consists of warm air furnaces and cast iron sectional hot water or steam domestic heating boilers. Production intentions for warm air furnaces for 1950 were supplied by the Building Materials Branch, Department of Trade and Commerce, while the estimate for heating boilers is based on a survey of the manufacturers.

ELECTRIC WATER HEATERS. This group comprises electric water heaters of the circulating, immersion, wrap-around and storage-tank types.

HOT WATER STORAGE TANKS. This classification consists of galvanized, copper, Everdur and Monel storage tanks and range boilers.

BUILDERS' HARDWARE. The 1949 production figure is estimated from monthly reports made to the Dominion Bureau of Statistics by firms which accounted for about three-fifths of the total 1948 output.

COMMON, COLOURLESS WINDOW GLASS. Production figures for the sole Canadian manufacturer are not available for publication. The estimate of the 1950 imports was supplied by the Import Division, Department of Trade and Commerce. The export figures shown are for glass of foreign origin only.

NON-METALLIC SHEATHED CABLE. Included in this classification are the 12/2 and 14/2 types of non-metallic sheathed cables. No statistics on a unit basis are available prior to 1946.

RIGID INSULATING BOARDS. This group consists of panel boards, plaster-base boards, roof boards and other building boards made from pulp or fibre. Exports are classified as "pulp and fibre wallboards" while imports are included in the "wallboard building board" category. Both exports and imports are reported in pounds and these figures have been converted to square feet, 1/2 inch basis to assure comparability with production data.

